

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

**Registered Entity Identifier Code (optional):** 20-340

**Organization:** Chicago Mercantile Exchange Inc. ("CME")

**Filing as a:**  **DCM**  **SEF**  **DCO**  **SDR**

**Please note - only ONE choice allowed.**

**Filing Date (mm/dd/yy):** 09/18/20 **Filing Description:** Initial Listing of the Nasdaq-100 Volatility Index<sup>sm</sup> (VOLQ<sup>sm</sup>) Futures Contract

**SPECIFY FILING TYPE**

**Please note only ONE choice allowed per Submission.**

**Organization Rules and Rule Amendments**

- |                          |                                     |            |
|--------------------------|-------------------------------------|------------|
| <input type="checkbox"/> | Certification                       | § 40.6(a)  |
| <input type="checkbox"/> | Approval                            | § 40.5(a)  |
| <input type="checkbox"/> | Notification                        | § 40.6(d)  |
| <input type="checkbox"/> | Advance Notice of SIDCO Rule Change | § 40.10(a) |
| <input type="checkbox"/> | SIDCO Emergency Rule Change         | § 40.10(h) |

**Rule Numbers:**

**New Product**

**Please note only ONE product per Submission.**

- |                                     |                                       |            |
|-------------------------------------|---------------------------------------|------------|
| <input checked="" type="checkbox"/> | Certification                         | § 40.2(a)  |
| <input type="checkbox"/>            | Certification Security Futures        | § 41.23(a) |
| <input type="checkbox"/>            | Certification Swap Class              | § 40.2(d)  |
| <input type="checkbox"/>            | Approval                              | § 40.3(a)  |
| <input type="checkbox"/>            | Approval Security Futures             | § 41.23(b) |
| <input type="checkbox"/>            | Novel Derivative Product Notification | § 40.12(a) |
| <input type="checkbox"/>            | Swap Submission                       | § 39.5     |

**Official Product Name:** See filing.

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- |                          |   |                      |
|--------------------------|---|----------------------|
| <input type="checkbox"/> | Certification   | § 40.6(a)            |
| <input type="checkbox"/> | Certification Made Available to Trade Determination     | § 40.6(a)            |
| <input type="checkbox"/> | Certification Security Futures                          | § 41.24(a)           |
| <input type="checkbox"/> | Delisting (No Open Interest)                            | § 40.6(a)            |
| <input type="checkbox"/> | Approval  | § 40.5(a)            |
| <input type="checkbox"/> | Approval Made Available to Trade Determination          | § 40.5(a)            |
| <input type="checkbox"/> | Approval Security Futures                               | § 41.24(c)           |
| <input type="checkbox"/> | Approval Amendments to enumerated agricultural products | § 40.4(a), § 40.5(a) |
| <input type="checkbox"/> | "Non-Material Agricultural Rule Change"                 | § 40.4(b)(5)         |
| <input type="checkbox"/> | Notification  | § 40.6(d)            |

**Official Name(s) of Product(s) Affected:**

**Rule Numbers:**

September 18, 2020

**VIA ELECTRONIC PORTAL**

Mr. Christopher J. Kirkpatrick  
 Office of the Secretariat  
 Commodity Futures Trading Commission  
 3 Lafayette Center  
 1155 21<sup>st</sup> Street NW  
 Washington, DC 20581

**Re: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of the Nasdaq-100 Volatility Index<sup>sm</sup> (VOLQ<sup>sm</sup>) Futures Contract. CME Submission No. 20-340**

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) hereby certifies to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of the Nasdaq-100 Volatility Index<sup>sm</sup> (VOLQ<sup>sm</sup>) Futures contract (the “Contract”) for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort effective on Sunday, October 4, 2020 for trade date Monday, October 5, 2020.

**Section 1 – Contract Specifications**

<i>Contract Unit</i>	\$1000 x Nasdaq-100 Volatility Index
<i>CME Globex</i>	Sunday – Friday: 6:00 p.m. - 5:00 p.m. Eastern Time (ET) (with a 15-minute halt beginning each date at 4:15 p.m. ET)  Preopen Period: Sunday: 5:00 p.m. - 6:00 p.m. ET Weekdays: 4:15 p.m. - 4:30 p.m. ET and 5:45 p.m.- 6:00 p.m. ET
<i>CME ClearPort</i>	Sunday 6:00p.m. - Friday 6:45p.m. ET (with 15-minute halt Monday – Thursday 6:45 p.m. - 7:00p.m. ET)  All CME Group Futures and Options Hours may be viewed <a href="#">HERE</a> .
<i>Minimum Price Fluctuation</i>	Outright: 0.05 Index points, equal to \$50.00 per contract.  Calendar spreads: 0.01 Index points, equal to \$10.00 per calendar spread.

<i>Commodity Code</i>	CME Globex: VLQ CME ClearPort: VLQ Clearing: VLQ
<i>Listing Schedule</i>	Three (3) Consecutive Calendar Months  (First Listed Months – October 2020, November 2020, December 2020)
<i>Settlement Method</i>	Financially Settled: Final Settlement Price shall be a special settlement quotation of the Index published by Nasdaq under the ticker “VoIS” (the “Index”)  VoIS is calculated as a VWAP of the component Nasdaq-100 Index options during a 300 second period of time (the “Closing Settlement Period”) commencing at 9:32:00 a.m. ET on the settlement day (or 2.00.001 minutes after the open of trading in the event trading does not commence at 9:30:00 a.m. ET).
<i>CME Globex Matching Algorithm</i>	F-FIFO
<i>Termination of Trading</i>	Final Settlement Price (“VoIS”) shall be determined thirty (30) days prior to the third Friday of the month immediately following the expiring contract month and shall be based on opening prices of the component cash settled Nasdaq-100 options of the Index.  If the cash settled Nasdaq-100 options are not scheduled to be traded on the third Friday of the month immediately following such delivery month, then such Final Settlement Price shall be scheduled for determination thirty (30) days prior to the first preceding Exchange Business Day on which cash settled Nasdaq-100 options are scheduled to be traded.  If the Index is not scheduled to be published thirty (30) days prior to the third Friday of the month immediately following such delivery month, then such Final Settlement Price shall be scheduled for determination on the first preceding Exchange Business Day on which the Index is scheduled to be published.
<i>Block Trade Minimum Threshold</i>	50 contracts  Reporting window: 5 minutes RTH; 15 minutes ETH and ATH

## Section 2 – Index Definition, Administration, Governance, and Characteristics

Nasdaq-100® Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>), is administered and published by Nasdaq PHLX LLC, and uses the Nations® VolDex® methodology to measure implied volatility which interpolates the first and second in-the-money and first and second out-of-the-money call and put options for the four weekly expirations, bracketing the moment 30 days in the future. Prices for these 32 options are used to calculate a mathematically robust, closed-form measure of at-the-money implied volatility.

[https://www.nasdaq.com/docs/2020/08/13/Reference\\_Methodology\\_long\\_0.pdf](https://www.nasdaq.com/docs/2020/08/13/Reference_Methodology_long_0.pdf)

The calculation agent for the Nasdaq-100 Volatility Index (VOLQ), is Solactive AG. Solactive AG adheres to the IOSCO Principles for Financial Benchmarks and is registered as a Benchmark Administrator under the European Benchmarks Regulation (BMR) with the German Federal Financial Supervisory Authority (BaFin) since April 2019

The **Nasdaq-100 Index®**, administered, calculated, and published by Nasdaq, is based on equity share prices of approximately 100 domestic and international non-financial companies with largest market capitalization that are listed on the Nasdaq Stock Market. The Index reflects companies across major industry groups, including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain securities of financial companies or investment companies. Since January 1, 2017, Nasdaq administers the Nasdaq proprietary indexes in accord with the IOSCO Principles.<sup>1</sup> Index methodology is codified at: [https://indexes.nasdaqomx.com/docs/Methodology\\_NDX.pdf](https://indexes.nasdaqomx.com/docs/Methodology_NDX.pdf)

## Section 3 – Non Narrow-Based Indexes

Pursuant to the Commodity Exchange Act (“CEA” or “Act”), the CFTC has exclusive jurisdiction over futures and options on futures based on non-narrow-based securities indexes. CEA Section 1a(35) provides certain criteria for determining whether an index is broad or narrow.

Nasdaq-100 is globally recognized securities benchmarks and readily satisfy the requirements under the CEA for being deemed to be non-narrow-based securities indexes. Accordingly, the Contract is subject to the exclusive jurisdiction of the SEC.

In 2009, the CFTC and the SEC issued revised guidance on the treatment of volatility indices as broad-based or narrow-based.<sup>2</sup> The seven criteria for determination of broad-based versus narrow-based specifically for volatility indices is reproduced here:

“IT IS ORDERED, pursuant to Section 1a(25)(B)(vi) of the CEA and Section 3(a)(55)(C)(vi) of the Exchange Act, that an index is not a narrow-based security index and is therefore a broad-based security index, if:

- (1) The index measures the magnitude of changes in the level of an underlying broad-based security index that is not a narrow-based security index as that term is defined in Section 1a(25) of the CEA and Section 3(a)(55) of the Exchange Act over a defined period of time, which magnitude is calculated using the prices of options on the underlying broad-based security index and represents (a) an annualized standard deviation of percent changes in the level of the underlying broad-based security index, (b) an annualized variance of percent changes in the level of the underlying broad-based security index, or (c) on a non-annualized basis, either the standard deviation or the variance of percent changes in the level of the underlying broad-based security index;

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<sup>1</sup> For an overview of the measures Nasdaq has taken to fulfill compliance with the IOSCO Principles, see “Nasdaq Index Policies” at: [https://business.nasdaq.com/media/Nasdaq-Clearing-Disclosure-Framework-for-FMI-2018\\_tcm5044-31366.pdf](https://business.nasdaq.com/media/Nasdaq-Clearing-Disclosure-Framework-for-FMI-2018_tcm5044-31366.pdf)

<sup>2</sup> <https://www.sec.gov/rules/other/2009/34-61020.pdf>

(2) The volatility index has more than nine component securities, all of which are options on the underlying broad-based security index;

(3) No component security of the volatility index comprises more than 30 percent of the volatility index's weighting;

(4) The five highest weighted component securities of the volatility index in the aggregate do not comprise more than 60 percent of the volatility index's weighting;

(5) The average daily trading volume of the lowest weighted component securities in the underlying broad-based security index upon which the volatility index is calculated (those comprising, in the aggregate, 25 percent of the underlying broad-based security index's weighting) has a dollar value of more than \$50,000,000 (or \$30,000,000 in the case of an underlying broad-based security index with 15 or more component securities), except if there are two or more securities with equal weighting that could be included in the calculation of the lowest weighted component securities comprising, in the aggregate, 25 percent of the underlying broad-based security index's weighting, such securities shall be ranked from lowest to highest dollar value of average daily trading volume and shall be included in the calculation based on their ranking starting with the lowest ranked security;

(6) The index options used to calculate the magnitude of change in the level of the underlying broad-based security index are listed for trading on an exchange and pricing information for the underlying broad-based security index, and options on such index, is computed and disseminated in real-time through major market data vendors; and

(7) The aggregate average daily trading volume in options on the underlying broad-based security index is at least 10,000 contracts calculated as of the preceding six full calendar months.”<sup>3</sup>

## Section 3.1

For the purposes of evaluating the Nasdaq-100 Volatility Index (VOLQ), each of the seven criteria enumerated above will be addressed in order.

- (1) The index measures the magnitude of changes in the level of an underlying broad-based security index that is not a narrow-based security index as that term is defined in Section 1a(25) of the CEA and Section 3(a)(55) of the Exchange Act over a defined period of time, which magnitude is calculated using the prices of options on the underlying broad-based security index and represents (a) an annualized standard deviation of percent changes in the level of the underlying broad-based security index, (b) an annualized variance of percent changes in the level of the underlying broad-based security index, or (c) on a non-annualized basis, either the standard deviation or the variance of percent changes in the level of the underlying broad-based security index;

The VOLQ Index calculates expected or implied magnitudes of change of the Nasdaq-100 Index. Furthermore, VOLQ is calculated using prices of cash settled options on that same index. As has been demonstrated before and as will be shown below in section 3.2, the Nasdaq-100 Index itself has been determined to be a broad-based security index, and not narrow-based. The resulting volatility risk metric is an annualized standard deviation of expected percent changes in the level of Nasdaq-100 Index. Therefore, CME has determined that the VOLQ Index meets the first of the seven criteria.

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<sup>3</sup> <https://www.sec.gov/rules/other/2009/34-61020.pdf>

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(2) The volatility index has more than nine component securities, all of which are options on the underlying broad-based security index;

The VOLQ Index is predicated on 32 component securities, which are taken eight each from four different tenors or expiration dates. The eight options at each tenor are comprised of four calls and four puts, all of which are options on an underlying broad-based index, namely the Nasdaq-100 Index. Therefore, CME has determined that the VOLQ Index meets the second of the seven criteria.

(3) No component security of the volatility index comprises more than 30 percent of the volatility index's weighting;

The VOLQ Index is predicated on 32 component securities, which are taken eight each from four different tenors or expiration dates.

Two expiries are less than 30 days from the current date and one expiry is precisely 30 days from the current date and the fourth expiry is greater than 30 days from the current date.

Implied variance is calculated for each of the four tenors and then interpolated to provide a 30-day forward variance which in turn is transformed into a standard deviation number in percentage terms. The weightings of each of the four tenors derive from a normalizing divisor of 15 days as exemplified in the following:

There are 43,200 minutes in 30 days. The scaling factor for the expirations is 15 days (21,600 minutes), expressed as a fraction of a year (525,600 minutes). First, the raw weightings are calculated:

If:

$$\left| \frac{T_1 - \left(\frac{43,200}{525,600}\right)}{\left(\frac{21,600}{525,600}\right)} \right| \leq 1$$

Then:

$$W_1 = 1 - \left| \frac{T_1 - \left(\frac{43,200}{525,600}\right)}{\left(\frac{21,600}{525,600}\right)} \right|$$

Else:

$$W_1 = 0$$

Where  $T_1$  is the time to the first term expiration, expressed as a fraction of a year in minutes,  $W_1$  is the raw weighting for the first-term expiration.

Therefore, the raw weighting for the first-term expiry is:

$$W_1 = 1 - |-0.8054630| = 0.1945370$$

The normalized weights are then calculated using the same formula used for the normalized weights of the strike prices.

The first-term normalized weight is:

$$w_1 = \frac{0.1945370}{0.1945370 + 0.6792593 + 0.8540741 + 0.3874074} = 0.0919676$$

The weighting for each of the other three tenors are calculated using the same method, and the tenors have a maximum weight of 46.875 percent using the target tenor of 30 days and using a normalizing denominator of 15 days when  $T_n = (43,200)/(525,600)$  or exactly 30 days. At that moment,  $w_3$  would be the weighting for  $T_n$

And assuming that:

T<sub>1</sub> = 16 days  
T<sub>2</sub> = 23 days  
T<sub>3</sub> = 30 days  
T<sub>4</sub> = 37 days

(holidays may make the T<sub>1</sub>, T<sub>2</sub> and T<sub>4</sub> days be different on occasion, but T<sub>3</sub> being 30 days is the essential part of the maximum weight calculation and is precisely the time horizon used to calculate the settlement)

Raw W<sub>1</sub> = 1 - |(16 days – 30 days)/15 days| = 1 - |-14/15| = 1 - 0.93333 = 0.06667  
Raw W<sub>2</sub> = 1 - |(23 days – 30 days)/15 days| = 1 - |-7/15| = 1 - 0.46667 = 0.53333  
Raw W<sub>3</sub> = 1 - |(30 days – 30 days)/15 days| = 1 - |0/15| = 1 - 0 = 1  
Raw W<sub>4</sub> = 1 - |(37 days – 30 days)/15 days| = 1 - |7/15| = 1 - 0.46667 = 0.53333

Summing the raw weights as the denominator and using “1” (Raw W<sub>3</sub>) which is the maximum the maximum weighting for a tenor for the settlement calculation is:

W<sub>3</sub> = (1/(0.06667 + 0.53333 + 1 + 0.53333)) = 1 / 2.13333 = .46875 or 46.875 percent

The eight options in each tenor are comprised of four calls and four puts, all of which are options on an underlying broad-based index, namely the Nasdaq-100 Index. The maximum weight for any particular option at any given tenor is 25 percent; and since the maximum weight of any tenor is 46.875 percent, the resulting compound ratio of 11.72 percent (0.1172 = 0.25 X 0.46875) which is considerably less than the 30 percent upper limit. Therefore, CME has determined that the VOLQ Index meets the third of the seven criteria.

(4) The five highest weighted component securities of the volatility index in the aggregate do not comprise more than 60 percent of the volatility index’s weighting;

Following the same example above, when both a tenor weight and a strike weight are at a maximum, the top two components would have an aggregate weight of 23.4375 percent. The next highest weighting when the top two components are at their greatest is 25 percent for a tenor and 12.5 percent for any particular option. The next three ranked components are not able to exceed 3.125 percent (0.03125= .25 X 0.125) each or 9.375 percent in aggregate. Summing both the top two and the next three gives a maximum possible weight of the five highest weighted components of 32.8125 percent (0.328125 =0.234375 + 0.09375) which is less than the 60 percent upper limit. Therefore, CME has determined that the VOLQ Index meets the fourth of the seven criteria.

(5) The average daily trading volume of the lowest weighted component securities in the underlying broad-based security index upon which the volatility index is calculated (those comprising, in the aggregate, 25 percent of the underlying broad-based security index’s weighting) has a dollar value of more than \$50,000,000 (or \$30,000,000 in the case of an underlying broad-based security index with 15 or more component securities), except if there are two or more securities with equal weighting that could be included in the calculation of the lowest weighted component securities comprising, in the aggregate, 25 percent of the underlying broad-based security index’s weighting, such securities shall be ranked from lowest to highest dollar value of average daily trading volume and shall be included in the calculation based on their ranking starting with the lowest ranked security;

As will be demonstrated in section 3.2, the Nasdaq-100 Index itself is a broad-based security index that is not narrow-based. Therefore, CME has determined that the VOLQ Index meets the fifth of the seven criteria.

(6) The index options used to calculate the magnitude of change in the level of the underlying broad-based security index are listed for trading on an exchange and pricing information for the

underlying broad-based security index, and options on such index, is computed and disseminated in real-time through major market data vendors; and

The VOLQ Index is predicated on options on an underlying broad-based index, namely the Nasdaq-100 Index (NDX). The NDX Index and NDX Options prices predicated on the index are listed for trading on an exchange, and prices for those options are disseminated in real-time through major market data vendors. Therefore, CME has determined that the VOLQ Index meets the sixth of the seven criteria.

(7) The aggregate average daily trading volume in options on the underlying broad-based security index is at least 10,000 contracts calculated as of the preceding six full calendar months.

Options on the underlying broad-based security index, namely the Nasdaq-100 (NDX) have an average daily volume (ADV) for the six month period from March 2, 2020 through August 31, 2020 of 35,381 which exceeds the minimum 10,000 contracts needed. Therefore, CME has determined that the VOLQ Index meets the seventh of the seven criteria.

## Section 3.2

Consideration of the underlying index for the options that inform this volatility index. This section is supplementary and is intended to corroborate the claims for criteria (1) and (5) in Section 3.1 above.

The CEA requires that security futures products, defined to comprise single stock futures and futures on narrow-based security indexes, shall be subject to the joint jurisdiction of the CFTC and the Securities Exchange Commission (“SEC”). Futures products for which the underlying references are broad-based security indexes remain under the sole jurisdiction of the CFTC.

Section 1a(35) of the Act defines a narrow-based index to be an index

- (i) which has nine or fewer component securities; or
- (ii) in which any component security comprises more than 30 percent of the index’s weighting; or
- (iii) in which the five highest weighted component securities in the aggregate represent more than 60 percent of the index’s weighting; or
- (iv) in which the lowest weighted component securities comprising, in the aggregate, 25 percent of the index’s weighting have an aggregate dollar value of average daily trading volume of less than \$50,000,000 (or in the case of an index with 15 or more component securities, less than \$30,000,000).

The Nasdaq-100 Index fails to meet any of the criteria for consideration as a narrow-based index.

In respect of criterion (i), as of December 31, 2019, the number of Index components was 103 for the Nasdaq-100 Index. In each instance, the number of Index constituents exceeds the nine security minimum threshold by at least one order of magnitude.

In respect of criteria (ii), (iii), and (iv), Exhibit 2 displays summary statistics of daily data for the interval July 1, 2019 through December 31, 2019.

### Exhibit 2 – CEA Section 1a(35) Narrow-Based Index Tests for the Indices

Quantiles of empirical distributions of daily measures of index characteristics, July 1, 2019 to December 31, 2019 (Nasdaq-100 Index = “Nasdaq”).



	<i>Criterion (ii)</i>	<i>Criterion (iii)</i>	<i>Criterion (iv)</i>
	<i>Index weight of largest index component</i>	<i>Aggregate index weight of largest 5 index components</i>	<i>Trading volume of smallest index components aggregating to 25 pct of index weight</i>
	<i>(pct)</i>	<i>(pct)</i>	<i>(\$ billions / day)</i>
	Nasdaq	Nasdaq	Nasdaq
<i>Maximum</i>	<b>12.45%</b>	<b>42.23%</b>	<b>\$19.1</b>
<i>75 Pctl</i>	<b>11.90%</b>	<b>41.67%</b>	<b>\$7.7</b>
<i>Median</i>	<b>11.46%</b>	<b>41.09%</b>	<b>\$6.7</b>
<i>25 Pctl</i>	<b>11.35%</b>	<b>40.92%</b>	<b>\$6.2</b>
<i>Minimum</i>	<b>11.04%</b>	<b>38.43%</b>	<b>\$2.2</b>

Data Source: Bloomberg LLC

For criterion (ii), the share of Index weight occupied by the largest component stock, test results appear in the left-hand panel of Exhibit 2. For each Index, the entire distribution of daily outcomes resides below the 30 percent threshold that would signify a narrow-based index. At no point does any Index's largest component stock account for more than 15 percent of Index weight.

Similar results obtain for criterion (iii), shown in the middle panel of Exhibit 2. In each case, the distribution of aggregate weight of the Index's largest five component stocks lies well below the 60 percent threshold that would characterize a narrow-based index. In no instance do the largest five members of any Index account for more than 45 percent of Index weight.

Summary statistics for distributions of trading volume, shown in Exhibit 2's right-hand panel, demonstrate that the Index is not narrow-based in the sense of criterion (iv). The test procedure is to rank each Index's component stocks from smallest market capitalization to largest, then to identify Index components with smallest market capitalizations in sufficient number to account for 25 percent of Index weight. If the representative aggregate daily trading volume of such identified Index components were less than \$30 million, then the Index would be considered narrow-based.

For this Index, the typical pace of such trading volume consistently exceeds \$2.2 billion per day, two orders of magnitude beyond the test threshold.

## Section 4 -- Compliance with Core Principles

The Exchange has reviewed the designated contract market core principles ("Core Principles") as set forth in the Act and has identified that the following Core Principles may be impacted by this initiative:

### **Core Principle 2 – Compliance with Rules**

Trading in the Contract shall be subject to CME Rulebook Chapter 4, which in each case includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices. Additionally, trading in these Contracts shall be subject to the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the CME Rulebook. Trading activity in these Contracts shall be subject to monitoring and surveillance by CME Group's Market Regulation Department, which has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

### ***Core Principle 3 – Contracts Not Readily Subject to Manipulation***

The underlying reference Index of the Contract is deemed to be sufficiently broad in definition and scope to deter attempted cornering, manipulation, crowding, or exertion of undue influence upon final settlements of the Contract.

As of December 31, 2019, the 103 component stocks of the Nasdaq-100 Index signified aggregate market capitalization of \$9.94 trillion.

The final settlement price of the Contract shall be based entirely upon transaction prices or actionable price indications made competitively and transparently on organized primary listing exchanges, under the regulation of the SEC.

### ***Core Principle 4 – Prevention of Market Disruption***

Trading in the Contract shall be subject to CME Rulebook Chapters 4 and 7, which in each case include prohibitions on manipulation, price distortion, and disruption to the expiration and assignment process. As with any new product listed for trading on a CME Group designated contract market, trading activity shall be subject to monitoring and surveillance by CME Group's Market Regulation Department.

The Contracts shall be subject to price limits that are harmonized with the US equity market-wide limit-up-limit-down mechanism set forth in the "Plan to Address Extraordinary Market Volatility Submitted to the SEC Pursuant to Rule 608 of Regulation NMS under the Securities Exchange Act of 1934"<sup>4</sup> and implemented under Nasdaq Stock Market Rule 4121 for Trading Halts Due to Extraordinary Volatility.

### ***Core Principle 5 – Position Limits or Accountability***

Since the VOLQ Index is an implied volatility metric, a sensible comparison for setting position limits might be generated from the position limits of correlated instruments that also have sensitivity to implied volatility, namely options. Although the VOLQ Index is predicated on option prices that cash settle to the Nasdaq-100 (NDX) index itself on a different exchange, CME's Options on Nasdaq-100 Futures (NQ options) are ultimately correlated with the cash settled NDX options as CME's options deliver a future on the same Index.

The Exchange has chosen to predicate its recommendation based on the position limits of these correlated instruments by calculating the vega exposure for at the money (ATM) options with the CME contract multiplier using the following framework:

For more precision the statement could be:

30-day options surrounding ATM with the underlying at 10,000 have approximately 10 index points of vega using the Black-Scholes Merton (BSM) option pricing model.

Multiplied by the contract multiplier of \$20/point, that means one NQ option has about \$200 of vega exposure (with the index at 10,000; if the index were at 5000, the vega for the ATM options would half that or roughly \$100).

By definition, one futures contract on the VOLQ Index will have \$1000 of vega exposure. Therefore, the vega exposure of one future is equivalent to the vega exposure of about 5 NQ options.

The CME Group position limit for NQ options is 250,000 contracts. Therefore, the equivalent number of VOLQ Index futures would be 50,000 contracts. (=250,000/5)

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<sup>4</sup> Exhibit A, Securities Exchange Act Release No 67091, 31 May 2012 (77 FR 33498, 6 June 2012), as amended from time to time (U.S. Securities and Exchange Commission, SRO Rulemaking, National Market System Plans, File 4-631).

Because this is a new product and novel for CME Group, the Exchange recommends limits that are approximately half of the equivalent limits for our NQ options.

The Contract shall be subject to a Position Reporting Level of 25 contracts and an All-Month Position Limit of 25,000 contracts, with a Spot Month Limit of 15,000 contracts and Last Trade Date Limit of 5,000 contracts. This is aligned with the Commission's guidance.

#### ***Core Principle 7 – Availability of General Information***

The Exchange has disseminated a Special Executive Report ("SER") that sets forth information in regard to specifications, terms, and conditions of the Contract. The SER is also available on the Exchange's website.

#### ***Core Principle 8 – Daily Publication of Trading Information***

The Exchange shall publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors.

#### ***Core Principle 9 – Execution of Transactions***

The Contract shall be listed for trading on CME Globex, which provides for efficient, competitive, and open execution of transactions. Additionally, CME Globex affords the benefits of reliability and global connectivity. The Contract will also be available for submission for clearing via CME ClearPort.

#### ***Core Principle 10 – Trade Information***

All requisite trade information shall be included in the audit trail and will suffice for the Market Regulation Department to monitor for market abuse.

#### ***Core Principle 11 – Financial Integrity of Transactions***

The Contract shall be cleared by CME Clearing, which is registered with the Commission as a derivatives clearing organization, and which is subject to all CFTC regulations related thereto.

#### ***Core Principle 12 – Protection of Markets and Market Participants***

CME Rulebook Chapters 4 and 5 set forth multiple strictures that preclude intermediaries from disadvantaging their customers. These Rules apply to trading in all of the Exchange's competitive trading venues and will apply to transactions in the contracts certified herein.

#### ***Core Principle 13 – Disciplinary Procedures***

CME Rulebook Chapter 4 provides for the Exchange to discipline, suspend, or expel members or market participants who violate the rules of the Exchange. Trading in the Contract shall be subject to these provisions. The Exchange's Market Regulation Department has the authority to exercise its powers of enforcement, in the event that rule violations in these products are identified.

#### ***Core Principle 14 – Dispute Resolution***

Disputes in respect of the Contract shall be subject to the arbitration provisions set forth in CME Rulebook Chapter 6, which allow all nonmembers to submit to arbitration claims for financial loss resulting from transactions on the Exchange. Pursuant to these provisions, any member named as a respondent in any such claim submitted by a nonmember is required to participate in arbitration proceedings. Additionally, the Exchange requires members to resolve via arbitration all disputes concerning transactions on the Exchange.

The Exchange certifies that listing the Contract complies with the Act including all regulations thereunder. There were no substantive opposing views to this proposal.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-fillings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or [CMEGSubmissionInquiry@cmegroup.com](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
Managing Director and Chief Regulatory Counsel

Attachments:	Appendix A	CME Rulebook Chapter 379
	Appendix B	Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)
	Appendix C	CME Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
	Appendix D	CME Rule 589. – Special Price Fluctuation Limits and Price Limits Table
	Appendix E	Exchange Fees

## **Appendix A**

### **Chapter 379 Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures**

#### **37900. SCOPE OF CHAPTER**

This chapter is limited in application to Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) futures (“futures”). In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange as applicable.

Unless otherwise specified, times referred to herein shall refer to and indicate Chicago Time.

##### **37900.A. Market Decline**

For the purposes of this chapter a Market Decline shall be as defined in New York Stock Exchange Rule 7.12 for Trading Halts Due to Extraordinary Volatility or in Nasdaq Stock Market Rule 4121 for Trading Halts Due to Extraordinary Volatility.

##### **37900.B. Primary Listing Exchange**

For the purposes of this chapter a Primary Listing Exchange shall be as defined in the “Plan to Address Extraordinary Market Volatility Submitted to the Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS Under the Securities Exchange Act of 1934” approved 31 May 2012 by the U.S. Securities and Exchange Commission (“SEC”), as amended from time to time (SEC, SRO Rulemaking, National Market System Plans, File 4-631).

##### **37900.C. Regulatory Halt**

For the purposes of this chapter a Regulatory Halt shall be as defined in the “Plan to Address Extraordinary Market Volatility Submitted to the Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS Under the Securities Exchange Act of 1934” approved 31 May 2012 by the SEC, as amended from time to time (SEC, SRO Rulemaking, National Market System Plans, File 4-631) and as implemented under New York Stock Exchange Rule 7.12 for Trading Halts Due to Extraordinary Volatility or under Nasdaq Stock Market Rule 4121 for Trading Halts Due to Extraordinary Volatility.

#### **37901. CONTRACT SPECIFICATIONS**

Each futures contract shall be valued at \$1000.00 times the Nasdaq-100 Volatility Index (“Index”).

#### **37902. TRADING SPECIFICATIONS**

##### **37902.A. Trading Schedule**

Futures contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange.

##### **37902.B. Trading Unit**

The unit of trade shall be \$1000.00 times the Index.

##### **37902.C. Price Increments**

Bids and offers shall be quoted in Index points. Subject to Rule 37906.C., the minimum price increment shall be 0.05 Index points, equal to \$50.00 per contract, except for intermonth spreads executed pursuant to Rule 542.A., for which the minimum price increment shall be 0.01 Index points, equal to \$10.00 per intermonth spread.

**37902.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**37902.E. [Reserved]**

**37902.F. [Reserved]**

**37902.G. Termination of Trading**

Trading in expiring futures shall terminate at the regularly scheduled start of trading on the Nasdaq Exchanges on the Business Day scheduled for determination of the Final Settlement Price (Rule 37903.A.) for such futures.

**37902.H. [Reserved]**

**37902.I. Price Limits and Trading Halts**

Futures shall be listed for expiration on such dates and shall be scheduled for trading during such hours as may be determined by the Exchange, *provided that* there shall be no trading in futures when trading is halted in the E-mini Nasdaq 100 futures Primary Futures Contract Month pursuant to Rule 35902.I.

In accordance with Rule 35902.I. the Exchange shall determine, in its sole discretion, the futures delivery month that represents such Primary Futures Contract Month.

**37903. SETTLEMENT PROCEDURES**

Delivery shall be by cash settlement.

**37903.A. Final Settlement Price**

For a futures contract for a given delivery month, the Final Settlement Price shall be a special settlement quotation of the Index published by Nasdaq under the ticker "VoIS".

VoIS is generally calculated as a VWAP of the component Nasdaq-100 Index options during a 300 second period of time commencing at 9:32:000 on the settlement day (or 2.00.001 minutes after the open of trading in the event trading does not commence at 9:30:00 a.m. ET).

VoIS shall be determined thirty (30) days prior to the third Friday of the month immediately following such delivery month

If the cash settled Nasdaq-100 Index options are not scheduled to be traded on the third Friday of the month immediately following such delivery month, then such special settlement quotation shall be scheduled for determination thirty (30) days prior to the first preceding Business Day on which cash settled Nasdaq-100 Index options are scheduled to be traded.

If the Index is not scheduled to be published thirty (30) days prior to the third Friday of the month immediately following such delivery month, then such special settlement quotation shall be scheduled for determination on the first preceding Business Day on which the Index is scheduled to be published.

**37903.B. Final Settlement**

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 37902.G.) shall make payment to or receive payment from the Clearing House in accordance with normal variation margin procedures based on such expiring contract's Final Settlement Price (Rule 37903.A.).

**37904. [RESERVED]**

37905. [RESERVED]

37906. [RESERVED]

(End Chapter 379)

### **INTERPRETATIONS & SPECIAL NOTICES RELATING TO CHAPTER 379**

Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts not sponsored, endorsed, sold or promoted by Nasdaq, Inc. (including its affiliates) (Nasdaq, with its affiliates, are referred to as the Corporations). The Corporations have not passed on the legality or suitability of, or the accuracy or adequacy of descriptions and disclosures relating to, Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts. The Corporations make no representation or warranty, express or implied to the owners of Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts or any member of the public regarding the advisability of investing in securities generally or in Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts particularly, or the ability of the Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) to track general stock market performance. Nasdaq has no obligation to take the needs of the CME or the owners of Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts into consideration in determining, composing or calculating the Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>). The Corporations are not responsible for and have not participated in the determination of the timing of, prices at, or quantities of Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts to be issued or in the determination or calculation of the equation by which Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts are to be converted into cash. The Corporations have no liability in connection with the administration, marketing or trading of Nasdaq-100<sup>®</sup> Volatility Index<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures contracts.

**THE CORPORATIONS DO NOT GUARANTEE THE ACCURACY AND/OR UNINTERRUPTED CALCULATION OF THE NASDAQ-100<sup>®</sup> VOLATILITY INDEX<sup>SM</sup> (VOLQ<sup>SM</sup>) OR ANY DATA INCLUDED THEREIN. THE CORPORATIONS MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY CME, OWNERS OF NASDAQ-100<sup>®</sup> VOLATILITY INDEX<sup>SM</sup> (VOLQ<sup>SM</sup>) Futures, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE NASDAQ-100<sup>®</sup> VOLATILITY INDEX<sup>SM</sup> (VOLQ<sup>SM</sup>) OR ANY DATA INCLUDED THEREIN. THE CORPORATIONS MAKE NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE NASDAQ -100<sup>®</sup> VOLATILITY INDEX<sup>SM</sup> (VOLQ<sup>SM</sup>) OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE CORPORATIONS HAVE ANY LIABILITY FOR ANY LOST PROFITS OR SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES, EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.**

**Appendix B**

**CME Rulebook**

**Chapter 5**

**(“Trading Qualifications and Practices”)**

**Position Limit, Position Accountability, and Reportable Level Table**

(under separate cover)



**Appendix C**

**CME Rulebook**

**Chapter 5**

**(“Trading Qualifications and Practices”)**

**Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table**

(additions underlined)

Instrument	Globex Symbol	Outrights			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks	NRR: Globex Format	NRR: Minimum Ticks
<u>Nasdaq-100</u> <u>Volatility Index</u> <u>Futures</u>	<u>VLQ</u>	<u>1 index points</u>	<u>100</u>	<u>20</u>	<u>25</u>	<u>25</u>

**Appendix D**  
**CME Rulebook**  
**Chapter 5**  
**(“Trading Qualifications and Practices”)**

**Rule 589. – Special Price Fluctuation Limits and Price Limits Table**

(additions underlined)

Product	RULEBOOK CHAPTER	COMMODITY CODE	PRIMARY/ ASSOCIATED	ASSOCIATED WITH	Daily Price Limit
<u>Nasdaq-100 Volatility Index Futures</u>	<u>379</u>	<u>VLQ</u>	<u>Associated</u>	<u>NQ</u>	<u>Daily Price Limit Table</u>

## Appendix E

### Exchange Fees

Membership Type	Venue/Transaction Type	Fee
Individual Members Clearing Members Rule 106.J Equity Member Firms & Rule 106.J Qualified Subsidiaries Rule 106.I Members & Rule 106.I Qualified Affiliates Rule 106.S Member Approved Funds	CME Globex	\$0.36
	EFP/EFR/Block	\$1.84
	Delivery	\$0.09
Rule 106.D Lessees Rule 106.F Employees	CME Globex	\$0.48
	EFP/EFR/Block	\$1.96
	Delivery	\$0.21
Rule 106.R Electronic Corporate Members (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.51
Rule 106.H and 106.N Firms Clearing Non-Equity Member Firms	CME Globex	\$0.61
	EFP/EFR/Block	\$2.14
	Delivery	\$0.39
International Incentive Program (IIP) and International Volume Incentive Program (IVIP) Participants (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.62
Central Bank Incentive Program (CBIP), Emerging Markets Bank Incentive Program (EMBIP), Latin American Fund Manager Incentive Program (FMIP), Participants (For other than CME Globex - Non-Member rates apply)	CME Globex - Outrights	\$0.97
	CME Globex - Spreads	\$0.85
Members Trading Outside of Division (For other than CME Globex During ETH - Non-Member rates apply)	CME Globex - During ETH Only	\$0.71
Non-Members	CME Globex - Outrights	\$1.23
	CME Globex - Spreads	\$0.85
	EFP/EFR/Block	\$2.15
	Delivery	\$0.40

Processing Fees	Fee
106.D Lessee/106.H Brokerage	\$0.13
106.F Employee Brokerage	\$0.13
Floor / "New" Brokerage	\$0.04
Position Adjustment/Position Transfer	\$0.10
Give-Up Surcharge	\$0.05
Facilitation Fee	\$0.40